AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A non-invasive spectrometric device for assessing ~~the~~ a level of hemoglobin in mammalian tissues comprising:

~~(a)~~ a wavelength filter ~~means~~ configured to receive light reflected from an area of tissue and for transmitting or reflecting a subset of wavelengths of light reflected from the area of tissue;

~~(b)~~ a light intensity sensor ~~means~~ arranged and disposed to measure the intensity of the wavelengths transmitted or reflected by the wavelength filter ~~means~~ and generate an electrical signal as a function of the light reflected from the area of tissue; ~~therefrom,~~

~~(c)~~ an output processor ~~processing means~~ connected to the light intensity sensor ~~means~~ and configured to receive and process the electrical signal ~~output therefrom~~, wherein the output processor is configured to calculate the level of hemoglobin as a function of the electrical signal; and

~~(d)~~ a display ~~means~~ connected to the output processor ~~processing means~~ and configured to display the ~~output~~ estimated level of hemoglobin;

wherein the wavelength filter comprises at least one pair of planar non-polarizing substrates in parallel opposed relation, at least one layer of light-wavelength modulating material disposed between the pair of planar substrates to achieve spectral coverage in the visible light spectrum, and a power source in power-providing communication with the substrates;

wherein each of the non-polarizing substrates are configured to pass at least a portion of the visible spectrum.

2. (Currently Amended) The device of claim 1 wherein the light intensity sensor ~~means~~ is arranged and disposed in stacked relation to the wavelength filter ~~means~~ such that wavelengths of light are transmitted through the wavelength filter ~~means~~ into the light intensity sensor ~~means~~.

3. (Currently Amended) The device of claim 1 wherein the light intensity sensor ~~means~~ is arranged and disposed in angular relation to the wavelength filter ~~means~~ such

that wavelengths of light are reflected from the wavelength filter ~~means~~ into the light intensity sensor ~~means~~.

4. (Canceled)

5. (Currently Amended) The device of claim [[4]] 1 wherein the substrates are electrically conducting substrates.

6. (Currently Amended) The device of claim [[4]] 1 wherein the light-wavelength modulating material comprises deformed helix ferroelectric liquid crystals (DH-FLC), electrically tuned to exhibit predetermined wavelength selection properties.

7. (Currently Amended) The device of claim 6 wherein the molecules in the layers of the DH-FLC are aligned perpendicular to the surfaces of the ~~planer~~ planar substrates.

8. (Original) The device of claim 5 wherein the power source is in electrical communication with the substrates to create an inplane electric field.

9. (Currently Amended) The device of claim [[4]] 1 wherein the power source is in thermal communication with one of the pair of substrates to create a temperature change in the wavelength modulating material.

10. (Currently Amended) The device of claim 9 wherein the power source is a transparent resistive heater positioned on the ~~planer~~ planar exterior surface of one of the pair of substrates.

11. (Original) The device of claim 5 wherein the light-wavelength modulating material comprises a layer of holographic polymer dispersed liquid crystals (H-PDLC).

12. (Original) The device of claim 11 wherein one layer of H-PDLC is arranged between two parallel-opposed electrically conducting substrate layers so as to form a

spatial gradient in the H-PDLC from one edge of the substrate layers to the opposing edge of the substrate layers.

13. (Original) The device of claim 11 wherein one layer of H-PDLC is arranged between two parallel-opposed electrically conducting substrate layers and wherein the H-PDLC has an index of refraction variable in response to an applied electric field.

14. (Original) The device of claim 11 comprising a stack composed of a plurality of layers of H-PDLC arranged in alternating, superposed, relation to a plurality of substrate layers, wherein the number of substrate layers equals the number of layers of H-PDLC plus one.

15. (Currently Amended) The device of claim [[12]] <u>14</u> wherein the stack is composed of between two and twenty layers of H-PDLC layers.

16. (Original) The device of claim 5 wherein the light-wavelength modulating material comprises at least on layer of cholesteric liquid crystals (CLC).

17. (Currently Amended) The device of claim ~~14 forming~~ <u>16 comprising</u> a stack composed a plurality of CLC layers arranged in alternating, superposed, relation to a plurality of substrate layers, the plurality of CLC layers having the capacity to reflect light of different, per-determined wavelengths, the stack having a number of substrate layers one greater than the number of CLC layers and wherein the power source produces electrical energy perpendicular to [[the]] <u>a</u> pitch axis of the CLC layers.

18. (Currently Amended) The device of claim [[15]] <u>16</u> further comprising a passive optical element disposed in parallel relation between two reflective CLC of opposite-handedness.

19. (Currently Amended) The device of claim 16, composed of one layer of CLC disposed between two layers of electrically conducting substrate, wherein the one layer of

CLC is configured ~~subjected to a in-plane electric field~~ to produce different pitch sizes as the electric field is varied ~~increased~~.

20. (Currently Amended) The device of claim 1 wherein the light intensity sensor ~~means~~ is selected from the group consisting of an array of CCD and a photodiode.